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# The Georgia Historical Quarterly

Volume VI

MARCH, 1922

Number 1

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## DEVELOPMENT OF AGRICULTURE IN UPPER GEORGIA FROM 1850 to 1880.

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The average historical book or article devotes a disproportionate amount of space to the doings of a few prominent personages, because information about them is comparatively easy to get, while the multitudes who do the bulk of the world's work seldom get their names into print and are soon forgotten when they pass away. But it is difficult to deduce general principles from a study of only a few individuals, and it is probably for this reason that history is not regarded as one of the sciences. A real history of any country or region, however, can be truly scientific if it takes into account in one way or another the whole population, and it may be wholly impersonal. It is indeed not easy to reconstruct an impersonal history for times more than a century or two in the past, but since about the time of the American Revolution statistical material suitable for historical purposes has been available in ever increasing variety, chiefly in census reports.

The first census of the United States, taken in 1790, set the example for the whole civilized world; and the results of that and thirteen subsequent censuses, taken at ten-year intervals, are contained in over a hundred volumes, which are a vast store-house of useful information, that has never been fully or even half utilized. There were a few local censuses

of population in this country before 1790, and several states at various times since have taken censuses of varying scope midway between the federal censuses, but Georgia does not happen to be one of those states. There are indeed for Georgia, as for most other states, more or less accurate annual or biennial returns of property values, school attendance, crop yields, etc., but those are not used in this article, which essays merely to present an outline of the conditions of agriculture in the upper part of the state for a few years before and after the Civil War, as indicated by the United States census reports. The methods used, which ought to be equally applicable to any other part of the country, bring out many fundamental facts which were probably not previously known, except in a very general way.

Of course no census is absolutely accurate and complete, and persons missed by the enumerators are likely to have a poor opinion of the work; but no matter how inefficient the enumerators and clerks may be, the results for a whole state or larger area are likely to be far better than one person alone could get in many years. The charge most frequently made against the census, especially by local patriots who feel aggrieved if their home town does not seem to grow as fast as some rival town, is that of incompleteness. But ascertaining the mere number of inhabitants or hogs or cultivated acres or bales of cotton or bushels of corn is not the sole aim of a census, and even if half the people or farms were overlooked, that might not seriously affect the statistics of the percentages of whites or foreigners or illiterates, average size and value of farms, yield of crops per acre, etc.

A greater source of error perhaps is the danger of some of the census questions being misunderstood, on account of the diversity of conditions in different parts of the country and the failure of the census officials to make sufficient allowance therefor, and the ignorance of some of the inhabitants. And even if there were no trouble on that score, and all the enumerators did their work perfectly, there would still be a chance of the results being vitiated by clerical or typo-

graphical errors. But it is hardly possible that such errors should all be of the same kind or lean in the same direction, so as to increase or decrease the totals; so that when figures for several states or counties are added together the errors tend to neutralize each other. Furthermore, different sets of figures, such as the population of the same area in different decades, the number of inhabitants and number of farms, number of cows and hogs, acreage and yield of crops, etc., have to be reasonably consistent, so that serious errors are easily detected. (A few apparent errors in the figures for Georgia will be discussed farther on).

Most persons who use census statistics at all are apt to consider only one state, county or city at a time, or merely make comparisons between different political units of the same order, and thus miss many interesting facts which could be obtained by assembling the communities into groups based on similarities. Every state in the Union is so diversified that state averages for population, agriculture, etc., conceal fundamental facts and mean very little. On the other hand, to discuss every county in a large area separately, especially where they are as small and numerous as in Georgia, would be tiresome.

The geographer therefore seeks to put counties or other political divisions together into groups of convenient size, usually contiguous, which shall be as homogeneous as possible with respect to one or more fundamental characteristics, such as soil, topography, or climate. And where accurate information about the natural features of a region is wanting, for lack of opportunity to explore it thoroughly, or for any other reason, one can often be guided by the similarity of adjoining counties in density of population, percentage of negroes, amount of land in cultivation, or some other statistical feature.

When one has selected a particular region for study it may then be worth while to make comparisons between individual counties, for of course no two are exactly alike in natural features, and even if they were the people in one might be a little more progressive than in another, and that

would always show in some way in the statistics. But in so doing one would have to keep a sharp lookout for the various kinds of errors above mentioned.

Georgia, like most other states bordering on the coast from New Jersey to Alabama, can be divided into two major



Map showing geographical or agricultural divisions of Georgia. Only those north of the fall line are discussed in this article. The small areas without names in the northwestern portion are Sand and Lookout Mountains, belonging to the Cumberland Plateau, with a narrow strip of Appalachian Valley between them (in Dade County), with an outlier of the Blue Ridge along the line between Polk and Paulding Counties.

divisions of approximately equal size, the highlands and the coastal plain, and these again subdivided. The boundary between the upper and lower country is known to physiographers as the fall line, on account of its marking the head of navigation on many rivers. It passes through or near Augusta, Milledgeville, Macon and Columbus, and has most of the clay hills and hard rocks and water-powers on one side of it and most of the sandy flats and navigable streams on the other.

The natural divisions of the whole state as at present understood are shown on the accompanying map, but in this article only the upper part of the state is considered, and only the 7th to 10th U. S. censuses (1850 to 1880). It is planned to cover lower Georgia for the same period in the next article, and by that time the returns from the 14th census may be sufficiently complete so that the developments from 1890 to 1920 can be shown in a similar manner. Of course natural boundaries and political boundaries usually do not coincide, so that some counties include parts of two or more very different regions. Most such counties have been omitted from the computations, but there are so many counties wholly within each natural sub-division of upper Georgia, with one or two exceptions, that such omissions do not noticeably impair the results. The counties used will be specified for each census, so that any one who desires can verify the figures for himself, or suggest modifications of the grouping. The base-map is from a plate used in Henderson's Commonwealth of Georgia (1885), and it shows the county boundaries as they were from 1878 to 1904, the longest period in the history of the state in which there were no new counties established.

Upper Georgia has about five divisions. In the northwest corner the *Cumberland Plateau*, which extends from Pennsylvania to Alabama, is represented by Sand and Lookout Mountains, which have only a small area in this state. This is a comparatively level region, with horizontal strata of sandstone rock and rather sandy soils, standing several hundred feet above the neighboring limestone valleys. It

does not cover enough of any one county in Georgia to be worth studying statistically, and therefore will not be considered further.

The *Appalachian Valley*, which extends from New York to Alabama, over a thousand miles, passes through the north-western part of Georgia, where it covers about 3000 square miles. It is characterized by a great variety of geological formations, of Paleozoic age, with rocks ranging from sandstone and chert to shale and limestone. The first two generally make narrow ridges and the last two broad valleys, and the ridges and valleys mostly run approximately north and south. There is more limestone in this region than in any other equal area in the state, and the valley lands are quite fertile. The climate places it near the northern limit of cotton, so that in ante-bellum days there were few large cotton plantations and few negroes, especially in the northern part. The mineral resources are abundant and varied, and a considerable part of the population is engaged in mining and manufacturing.

The *Blue Ridge* or eastern mountain region extends with some interruptions from New Jersey to Alabama, covers about 2000 square miles in extreme northern Georgia, and is mountainous throughout, with some peaks nearly a mile above sea-level, steep ridges radiating from them in all directions, and valleys of varying width between the ridges. The rocks are mostly sandstone, gneiss, and mica schist (with a strip of marble in the western part), and the soils are not particularly fertile, except in the bottoms of the valleys, where the "cream" of the slopes has been accumulating for ages. The rough topography restricts cultivation to a small fraction of the area, and also interferes with communication, and some of the civilization is rather primitive. This region used to be especially noted for "moonshining," an industry which is favored by the natural conditions in three or four different ways. First, numerous wooded ravines are well supplied with the necessary water and sufficiently secluded so that stills are not easily discovered. Second, the isolation and sparsity of the population makes the natives

rather intolerant of the laws that all thickly settled communities must have for mutual protection. Third, the roads are so rough that it is sometimes more economical to market the corn crop in the shape of whisky than in the far more bulky grain. But where the valley bottoms are half a mile wide or more and provided with railroads, as about the head of the Little Tennessee River in Rabun County, there are now some large prosperous farms, with painted two-story houses, silos, automobiles, and other evidences of modern civilization. The climate is a little too cold or the growing season too short for the profitable cultivation of cotton, which is attempted in only a few spots. Negroes have always been scarce, and there are even said to be some grown people among the mountains who have never seen one of them.

The *Piedmont Region* also extends from New Jersey to Alabama, covering about 20,000 square miles in Georgia, and it is characterized by granite, gneiss, and other ancient crystalline rocks, which weather into clay, clay loam and sandy loam of medium fertility, commonly reddish in color. The topography is moderately hilly to broken, swamps are scarce, and natural ponds are unknown. The rivers are all muddy, and they flow over numerous rocky shoals which are important sources of water-power.

In Georgia, and also in South Carolina,<sup>1</sup> the Piedmont region can be divided lengthwise into two subdivisions of approximately equal width, differing mainly in the racial composition of the population, as was pointed out several years ago by Dr. R. P. Brooks, in the first of his papers cited on a succeeding page. In the upper division there are about twice as many whites as negroes, while in the lower the proportions are reversed; and with these differences go many social and economic differences which might escape the notice of a traveler but are brought out very strikingly by statistics. The reason for all this is not immediately obvious, for the natural environmental differences are not very marked. The upper division is of course higher than

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<sup>1</sup> See Jour. Elisha Mitchell, Sci. Soc. 35:106-107: 1920.



the lower and therefore a little more hilly, and being at the same time farther from the equator and from the Gulf Stream it is somewhat cooler. And having a little more water-power in proportion to its area favors the development of manufacturing, which is carried on mainly by white people. The available mechanical analyses of the soils show very little difference, and we have not enough chemical analyses yet to draw any sound conclusions from, but it seems likely that the lower division is or has been the more fertile, if the percentage of improved land is a reliable index. A careful quantitative analysis of the native vegetation should throw considerable light on this point, but that has yet not been undertaken.

At any rate, the lower division, being nearer to the early settlements, a little warmer, a little more level, and perhaps more fertile, was occupied by wealthy cotton planters with many slaves early in the state's history, and negroes have been in the majority there since about 1830. In 1870 and 1880, the only years for which we have such data by counties, there were about six times as many South Carolinians as Virginians in the upper Piedmont, while in the lower their numbers were about equal. At the same time there were about twice as many North Carolinians as Virginians in the upper division and half as many in the lower. These curious differences may be correlated with soil differences, for a farmer migrating to another state is inclined to look for soils similar to what he has been accustomed to.

There is of course no sharp boundary between the upper and lower Piedmont, but on the map a dotted line has been drawn somewhat arbitrarily, through those counties in which the numbers of whites and negroes are, or have been most of the time, about equal.

As my personal acquaintance with Georgia goes back only to 1887, and my interest in agricultural geography developed much later, it is quite possible that the census figures for ante-bellum conditions have not been correctly interpreted in every case, and some erroneous conclusions may have been drawn. Corrections and criticisms will therefore be

gratefully received, and utilized if any of this material should ever be put in more permanent form. Considerable literature on the subject has been examined, and some of the more important works must be referred to here, for the benefit of readers who wish additional details or different points of view.

An excellent account of the natural features and social conditions of every county in the state, at the beginning of the period under consideration, can be found in White's *Statistics of Georgia, 1849*.<sup>2</sup>

We are now ready to take up the successive censuses and make the figures talk, as it were. That of 1840 gave the amount of each of the principal crops produced in every county in the United States in the year preceding, but no information about the number, size and value of farms or the acreage of any crop, so that it is of very little use in this connection.

The Seventh Census, of 1850, was taken under the direction of Joseph C. G. Kennedy, a Pennsylvanian, but he was succeeded in 1853 by J. D. B. DeBow, of New Orleans, an accomplished statistician, who conducted *DeBow's Review*,

\* Much the same sort of information for the end of the period, thirty years later, is given in Dr. R. H. Loughridge's report on cotton production in Georgia, in the 6th volume of the 10th Census (pp. 259-450). Much of the material in the last-named was worked over in J. T. Henderson's *Commonwealth of Georgia*, published by the state agricultural department in 1886.

There are two interesting articles by Rev. C. W. Howard, a resident of North-west Georgia, in the reports of the U. S. Commissioner of Agriculture for 1866 and 1874, namely, *Condition and Resources of Georgia*, and *Condition of Agriculture in the cotton states*. An anonymous (editorial?) article on Southern agriculture, in the 1867 volume of the same series, gives a pretty good picture of agricultural conditions in Georgia and other southeastern states immediately after the Civil War.

Two scholarly papers by R. P. Brooks have been very useful in this connection, namely, *A local study of the race problem: race relations in the eastern Piedmont region of Georgia* (*Polit. Sci. Quarterly*, 26:193-221, 1911), and *The agrarian revolution in Georgia, 1865-1912* (*Univ. Wis. Bull.* 639, 129 pp. 1914). My classmate, Dr. U. B. Phillips, has published several important papers on the economic history of the South, not restricted to Georgia, among which may be mentioned: *The economic cost of slave-holding in the cotton belt* (*Polit. Sci. Quarterly* 20:257-175, 1905); *The origin and growth of the southern black belts* (*Am. Hist. Rev.* 11:798-816, 1906); *A history of transportation in the eastern cotton belt to 1860* (xv—405 pp. New York, 1908); and *The decadence of the plantation system* (*Annals Am. Acad. Polit. & Soc. Sci.*, Jan., 1910).

Many additional titles bearing less directly on the subject under discussion can be found in R. P. Brooks's *Preliminary bibliography of Georgia History* (*Univ. of Ga. Bull.*, vol. 10, no. 10A, 1910).

a magazine devoted to the resources of the South, from 1846 to 1871. The quarto volume containing nearly all the results of that census, published in 1853, gives among other things for each county the amount of improved and unimproved land in farms, the value of farms (meaning land, fences and buildings combined), implements and machinery, and livestock, the value of animals slaughtered in a year, the number of horses mules,<sup>3</sup> milch cows, work oxen, other cattle, sheep and swine and the production of various crops. The number of farms, a very important item, was not given in the quarto volume, but in the octavo Compendium, published in 1854, in which Mr. DeBow analyzed some of the returns more minutely than his predecessor did, and also made many interesting comparisons between the United States and the principal European countries.

From these data, and the population figures for the same period, the ratios given in Table 1 have been computed. Most of these are intended to show the size, value and equipment of the average farm in the four principal divisions of upper Georgia in the middle of the last century. The number of inhabitants per farm is simply the ratio of population to farms, and is of course somewhat greater than the average number of persons living on a farm, for some of the people had other occupations than farming. The number of improved acres per inhabitant may indicate several things. It is likely to be low in newly settled regions, or wherever many of the people live by hunting and fishing, as the Indians did, or by mining or lumbering; also in regions of intensive agriculture, like China, Japan, and some parts of Europe; and in manufacturing regions like southern New England, where most of the food is imported in exchange for factory products. A large number of improved acres per inhabitant means extensive agriculture, and the soil may be either so poor that it takes a good many acres to support a family, or rich as in the wheat regions of the Northwest, where foodstuffs are exported and manufactured goods imported.

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<sup>3</sup> Mules and asses are combined in this and several subsequent censuses, but the latter are so few in number that it makes very little difference in the per farm ratios if they are ignored entirely.

A few elementary population statistics, such as density of population and percentage of negroes, are given in each table. The census did not in 1850, or at any other time, tell how many slaves were employed on farms, but the number of slaves per farm is computed on the assumption that all the slaves were on the farms, which is not very far from the truth, for the towns were few and small in those days, and there was little need of slaves in them except as domestic servants.<sup>4</sup>

The counties used for the 1850 statistics are as follows: Appalachian Valley:—Cass (now Bartow), Chattooga, Dade, Floyd, Gordon, Murray, Walker. Blue Ridge:—Gilmer, Rabun, Union. Upper Piedmont:—Campbell, Carroll, Cherokee, Cobb, DeKalb, Fayette, Forsyth, Franklin, Gwinnett, Habersham, Hall, Jackson, Madison, Walton. Lower Piedmont:—Baldwin, Butts, Columbia, Greene, Hancock, Harris, Jasper, Jones, Lincoln, Meriwether, Monroe, Morgan, Oglethorpe, Pike, Putnam, Taliferro, Troup, Upson, Warren, Wilkes.

A few apparent errors in the 1850 figures as published must now be pointed out. Cass County was returned as having 52,575 acres of improved farm land and only 15,591 unimproved. Perhaps these figures should be interchanged, for the other Valley counties had two or three times as much unimproved as improved land. Or it may be that the unimproved (and therefore total farm land) is much too low, for the ratio of improved land to population seems about right. Franklin returned 330,811 acres unimproved, which seems a little too high, and Oglethorpe 219,712 improved, which

<sup>4</sup> In the Appalachian Valley the only towns for which we have census figures for 1850 (and those are only approximate) were Rome, with about 3000 people, and Dalton, with about 2000. In the Blue Ridge there were no incorporated places. In the upper Piedmont, Atlanta had 2572 inhabitants, and Carrollton, Decatur and Monroe each less than 1000. Athens, about on the line between upper and lower Piedmont, had 1428. In the lower Piedmont were Madison, with 3516 (estimated), Griffin, with 2320, Milledgeville 2216, Lagrange 1523, Forsyth 657, and Washington 462; while at the lower edge of the highlands were the fall-line cities of Augusta, with 11,758, Columbus, with 5942, and Macon, with 5720.

The following counties existing at that time were not used, for the reasons here given. Paulding included what is now Polk, which is mostly in the Appalachian Valley. Lumpkin was then (as now, when it is considerably smaller) about equally divided between Blue Ridge and Piedmont. Clarke, Coweta, Elbert, Heard, Henry and Newton are about on the line between upper and lower Piedmont, and therefore hardly typical of either. Bibb, Crawford, Muscogee, Richmond and Talbot, at the lower edge of the Piedmont, were partly or mostly in the coastal plain.

seems about twice too high in comparison with the population, with adjoining counties, and with the same county in 1860. (If the first digit was 1 instead of 2 it would be about right). But these errors, if they are errors, do not affect the regional averages much.

TABLE 1.

*Agricultural statistics of upper Georgia, 1850.*

	APPALACHIAN VALLEY	BLUE RIDGE	UPPER PIEDMONT	LOWER PIEDMONT	WHOLE STATE
Inhabitants per square mile. . . . .	20.8	<i>10.4</i>	21.5	28.2	15.6
Percent white . . . . .	80.9	<b>97.7</b>	80.2	<i>41.8</i>	57.6
Percent free colored. . . . .	0.1	<i>0</i>	0.1	0.3	0.3
Percent slaves . . . . .	19.0	<i>2.3</i>	19.7	<b>57.9</b>	42.1
Percent illiterate—adult whites. . .	16.5	<b>38.0</b>	21.0	<i>10.8</i>	18.8
Percent of land improved. . . . .	12.0	<i>6.1</i>	19.1	<b>43.8</b>	17.0
Inhabitants per farm. . . . .	17.4	<i>10.2</i>	12.2	<b>22.1</b>	17.5
Improved acres per inhabitant. . . .	3.7	<i>2.6</i>	5.7	<b>9.9</b>	7.0
Average number of acres per farm. .	212	<b>258</b>	272	466	441
Average improved acres per farm. .	64	<i>38</i>	70	219	123
Value of land & buildings per farm	<b>\$1800</b>	<i>635</i>	987	<b>2675</b>	1850
Value of implements & machinery. .	74	<i>31</i>	67	<b>160</b>	114
Value of live-stock per farm: . . . .	369	<i>218</i>	296	<b>673</b>	498
Number of slaves per farm. . . . .	3.3	<i>0.3</i>	2.4	<b>12.8</b>	7.4
Number of horses per farm. . . . .	2.9	<i>1.9</i>	2.4	<b>3.7</b>	2.9
Number of mules per farm. . . . .	0.8	<i>0.2</i>	0.4	<b>2.0</b>	1.1
Number of work oxen per farm. . . .	1.4	<i>0.7</i>	1.2	<b>2.0</b>	1.4
Number of milch cows per farm. . . .	3.8	<i>2.8</i>	3.1	<b>5.2</b>	6.5
Number of other cattle per farm. . . .	7.1	<i>5.4</i>	5.2	<b>11.4</b>	13.3
Number of sheep per farm. . . . .	9.2	<i>8.9</i>	7.8	<b>12.7</b>	10.8
Number of swine per farm. . . . .	38.0	<b>29.0</b>	<i>26.6</i>	<b>49.7</b>	41.9
Value of animals slaughtered p. f. .	\$ 98	<i>59</i>	83	<b>167</b>	122
Bales of cotton produced per farm. .	1.8	<i>0</i>	2.5	<b>18.9</b>	9.6
Bushels of corn produced per farm . .	641	<i>312</i>	416	<b>815</b>	581

In each table there is one column of figures for each of the four regions discussed and another for the whole state. The highest number in each line is printed in heavy type and the lowest in italics, to show at a glance which region leads and which brings up the rear in any particular. Where one of the extremes falls in the last column it of course means that some region in South Georgia varies still more in the direction indicated. And where either the italics or the heavy number is wanting, two or more regions rank so nearly equal that it is impossible to decide between them.

It can be readily seen from the table that the lower Piedmont region led in nearly everything except the percentage of whites, while the Blue Ridge represented the opposite extreme, and the Valley was between the upper and lower Piedmont in many particulars. The average lower Piedmont farm was a plantation with about ten white people (presumably representing the families of the owner and the overseer) and a dozen slaves, and seven or eight work animals, probably meaning five or six plows. As there were nearly ten acres of improved land for every man, woman and child, and the soil was up to the average in fertility, the people, both white and black, must have been in pretty comfortable circumstances; and this agrees with available contemporary testimony. In size and value of farms this region was above the average for the whole United States. Of course some of the plantations were far above the average and many below, but the census of 1850 throws no light on such variations, as later ones do.

In like manner one can draw a very different statistical picture of the Blue Ridge mountaineers. In that region there were only 2.6 improved acres per inhabitant, but a considerable part of the subsistence of the population must have been derived from wild game, and from cattle and hogs ranging the unfenced mountain-sides. The percentage of illiteracy there was over three times as high as among the whites of the lower Piedmont (and the same is true today).

Every region then had more horses than mules, and about twice as many hogs as people, but that state of affairs did not last much longer in some parts, probably largely because mules are not raised on free range as many horses are or were, and the free range was rapidly diminishing with the extension of farms.

Commercial fertilizers were then practically unknown, and the southern agricultural papers of that period are full of complaints about the exhaustion of the soil. In White's Statistics (1849) we find the following illuminating comments on the soils of various Piedmont counties. Baldwin, "Lands generally much worn;" Clarke, "One-third worn out;" Colum-

bia, "Injured by imprudent cultivation;" Elbert, "Impoverished by bad cultivation;" Greene, "Much worn-out land;" Jones, "Soil much worn," Morgan, "Much waste, but being restored;" Putnam (same as Elbert); Troup, "Some much worn;" Wilkes, "Has suffered much from injudicious cultivation." In some sections at least this condition seems to have been met by getting more slaves and cultivating more acres to offset the diminishing yield per acre, but a more usual procedure was the abandonment of old fields and the clearing of new ones from the forests (a common practice in the tropics today).

The Eighth Census, of 1860, was directed again by J. C. G. Kennedy. The results were not published until the midst of the Civil War (the agricultural volume in 1864), but that does not seem to have materially affected their accuracy and completeness, and the fact that the southeastern states were then out of the Union is barely mentioned.

That census did not give the number of farms in each county directly, but divided them into several size groups, which must be added together to get the totals. And in the case of states (except Nevada) the totals thus obtained are always less than those given in another table in the same volume. For Georgia the discrepancy is between 53,897 as compared with 62,003. This was nowhere explained, but may be due to the omission from the size classification of all farms having less than three acres improved, which might be either cattle-ranches or small market-gardens. It should be borne in mind, therefore, that in this way the size and value of the average farm in 1860 is unavoidably exaggerated about 15%, if farm meant the same thing then as at other censuses.

An interesting table in the 8th Census volume on agriculture gives the number of slave-holders in each county in the South, classified as to whether they owned 1, 2, 3, 4 (etc.) slaves. This enables us to compare the number of slave-holders with the number of farms, and also to plot the gradations of wealth, which are indicated in another way by

the farm size classification. The other returns are of much the same sort as in 1850.

Before 1860 Catoosa, Polk and Whitfield had been added to the list of Valley counties, and Paulding shifted to its present place in the upper Piedmont. New counties in the Blue Ridge were Fannin, Pickens and Towns, and there have been no further changes in county boundaries in the two northernmost regions to this day, unless some minor readjustments. Dawson and White had been carved out of Lumpkin, but that did not help the statistician much, for both are partly in the mountains and partly in the Piedmont, like their parent. New counties for the upper Piedmont are Banks, Clayton, Fulton, Haralson, Hart and Milton (besides Paulding, explained above), and for the lower, Spalding. Most of the coastal plain portion of Talbot had been used in the formation of Taylor, so that Talbot now appears in the Piedmont column. About the same time Warren had been made smaller and more homogeneous by carving the new county of Glascock out of its coastal plain portion.

The principal cities and towns in upper Georgia in 1860 were as follows:—In the Valley, Rome with 4010 inhabitants. In the upper Piedmont, Atlanta, with 9554, and Marietta, with 2680. Between upper and lower Piedmont, Athens 2848, Newnan 2546. In the lower Piedmont, Milledgeville 2480, Eatonton 2009. Along the fall line, Augusta 12,493, Columbus 9621, Macon 8247.

The only apparent error that needs to be mentioned is that the unimproved land in Rabun County was returned as 125,106 acres, which seems too high, as it is about nine times the improved land instead of five as in the other counties.



TABLE 2.

*Agricultural statistics of upper Georgia, 1860.*

	APPALACHIAN VALLEY	BLUE RIDGE	UPPER PIEDMONT	LOWER PIEDMONT	WHOLE STATE
Inhabitants per square mile.....	26.4	13.8	26.1	28.0	18.0
Percent white .....	74.9	96.3	78.3	38.4	56.0
Percent free colored .....	0.1	0.1	0.2	0.3	0.3
Percent slaves.....	25.0	3.6	21.5	61.3	43.7
Percent of land improved.....	21.5	8.8	23.2	45.1	21.5
Number of inhabitants per farm..	18.2	12.5	14.7	24.7	19.6
Improved acres per inhabitant....	5.3	4.0	5.7	10.4	7.6
Average number of acres per farm..	316	296	283	515	430
Average improved acres per farm..	95	50	84	256	130
Percent of farms with over 100 acres improved.....	31.6	12.0	27.8	66.5	41.7
Value of land & buildings per f'm.	\$2880	1004	1600	3760	2535
Value of implements & machinery.	119	44	76	178	111
Value of live-stock per farm.....	630	338	408	935	618
Number of slaves per slave-holder.	8.6	4.5	6.6	13.3	11.2
Percent of holders with 10 or more slaves .....	28.0	10.0	20.5	41.8	33.8
Number of slaves per farm.....	4.3	0.4	3.2	15.1	8.6
Number of horses per farm.....	2.8	2.0	2.1	2.9	2.1
Number of mules per farm.....	1.4	0.5	0.9	3.1	1.6
Number of work oxen per farm...	1.4	1.4	1.4	1.9	1.2
Number of milch cows per farm..	3.3	3.0	3.0	5.6	4.8
Number of other cattle per farm..	6.4	5.0	4.6	11.5	10.2
Number of sheep per farm.....	8.5	10.4	7.3	9.8	8.3
Number of swine per farm.....	31.4	27.2	20.0	45.3	32.9
Value of animals slaughtered per farm (\$).....	180	97	123	291	203
Value of animals slaughtered per square mile (\$).....	261	106	218	329	186
Bales of Cotton (1859) per farm..	4.6	0.1	3.4	22.7	13.0
Bales of cotton (1859) per sq. m..	6.6	0.1	6.1	25.7	12.0
Bushels of corn (1859) per farm..	682	392	388	744	571
Bushels of corn (1859) per sq. m..	987	432	688	840	528

The differences between the several regions were much the same in 1860 as in 1850, but in the intervening decade farming developed rapidly, not only in upper Georgia but throughout the South, and there is no telling what heights might have been reached if the Civil War had been postponed a few decades. The population (particularly of whites) and number of farms indeed decreased a trifle in the lower Piedmont, but that probably merely indicated a rising standard of living on the part of the planters, so that they required more land to support them in the finer style to which they were becoming accustomed. The amount of improved land increased in every region, especially the first, which had not been thrown open to settlers until after 1830, and was therefore still not far from the frontier stage. The average size of farms increased also, more than enough to compensate for the unexplained discrepancy in numbers above mentioned.

The apparent value per farm jumped up still more, but that seems to have been largely the result of a rise in prices all over the United States, following the discovery of gold in California in 1848. (Price curves constructed by economists do not show much difference in the purchasing power of the dollar between 1850 and 1860, strange to say, but the average value of farms rose decidedly in every state except California).

The average value of slaves, of all ages, in Georgia in 1860 was about \$900 per head, according to Phillips, so that slaves must have constituted more than half of the average planter's capital.

The lower Piedmont region had more slave-holders than farms, which means that practically every farmer there, as well as some of the town people, owned one or more slaves, while in the other regions not more than half the farmers could have had any slaves at all. The number of white persons per farm remained about the same as in 1850, ranging from about nine to fourteen in different regions. Mules now outnumbered horses a little in the lower Piedmont, but not yet in the other regions. Hogs were now less than twice

as numerous as people in most of the regions, and sheep were declining also, doubtless on account of the dwindling free range, and perhaps also on account of the increase of dogs with increase of population.

The raising of cotton was on a boom, and the production per farm increased in every region, though perhaps not much in the lower Piedmont if we had the correct number of farms. In the whole state the acreage of improved land increased about 26% and the production of cotton over 40% during the decade. Corn meanwhile remained about at a standstill.

The Ninth Census, of 1870, was directed by Gen. Francis A. Walker, of Massachusetts, one of the ablest demographers this country has ever produced, but he worked under considerable difficulties. The method of enumeration was still governed by the census law of 1850, which the country had outgrown in several particulars. Worse still, so short a time had elapsed since the Civil War that conditions were rather unsettled in the South. It is commonly believed that the enumeration of 1870 was incomplete for the southern states, this conclusion being based chiefly on the fact that the census of 1880 showed a large apparent increase in some regions that had had little or no immigration in the decade, particularly in South Carolina. Soon after the taking of the Tenth Census there were charges of "padding," and a special investigation made in South Carolina revealed quite a number of persons who claimed to have been living in the same communities in 1870 and not counted then.

In one of the volumes of the Eleventh Census (Vol. 1, p. xii) an attempt was made to estimate the true population of the 13 southeasternmost states in 1870 on the assumption that the rate of increase between 1860 and 1870 was the same as between 1870 and 1880, as it was in the North, and this estimate increased the 1870 figure for whites by about 11% and for negroes about 12%. But the assumption of equal increase in the two decades is faulty, for even if not a man had been killed in the war on either side the South would have felt the strain more than the North, on account of a larger proportion of the population being engaged in it, and

the final defeat and reconstruction period. So perhaps the 9th Census was as near complete as most of the others; and anyway, incompleteness would not necessarily affect the ratios showing average farm conditions.

Another possible source of error in 1870 is the unknown number of negro farmers. Before the war they were negligible, but after emancipation of course the freedmen gradually became farm proprietors (though not necessarily owners). General Walker said of this:

"The plantations of the old slave states are squatted all over by the former slaves, who hold small portions of the soil, often very loosely determined as to extent, under almost all varieties of tenure. . . . . Efforts were made to impose something like a rule which should govern in the returns of agriculture at the South; but after a weary and unprofitable struggle the Superintendent was fain to accept whatever could be obtained in regard to the agriculture of that region, without greatly criticising the form in which it came." <sup>5</sup>

This sounds rather hopeless; but nevertheless it seems very probably that in upper Georgia at least there were very few negroes owning, managing or renting farms in 1870. At that time the freedmen were nearly all (92% of those over 10 in Georgia, and probably 95% of the adults) still illiterate, and hardly capable of managing their own affairs; and most of the planters were trying to continue the old plantation system as nearly as possible, substituting hired labor for slaves. And in the mountain region there were very few negroes anyway, so that comparisons between 1860 and 1870 there ought to be fair enough. So if we assume that in 1870 all the farms in Georgia were owned and managed by white men, and that none were overlooked by the census enumerators, we will perhaps be not more than ten percent in error.

In 1870 the values were reported in paper currency, which was worth only 80% as much as gold, or in other words, gold was at a premium of 25%, and the currency inflated that

\* Compendium 9th Census, p. 692.

much. And the gold itself was probably cheaper in 1870 than in 1860, so that prices for the two periods are not closely comparable. After making allowance for all this, however, a great slump in farm values, due to the war, is still evident. The amount of improved land increased a little in the mountains, but fell off in the other regions, especially the lower Piedmont, which was the most prosperous before. The number of farms increased everywhere, but they were all smaller, and worth only about half as much per acre as before the war. The census did not give separate figures for the value of farm land until 1900, but Rev. C. W. Howard, in the first of his articles cited on a preceding page, stated that the average value of land in Georgia, according to the Comptroller's report, was \$4.85 in 1860 and \$3.42 in 1866, and still going down; though in his second article, written about 1874, he observed that land values had nearly returned to the 1860 figures. There was a considerable decline in all sorts of live-stock, especially hogs, which were now fewer than people, except in the mountains.

In making comparisons between 1860 and 1870 there are no new counties to be taken into consideration anywhere in Georgia, fortunately. The larger cities had increased in population faster than the rural districts, as usual (and this tendency seems to be more pronounced in war times, as we have all observed lately), and that put the upper Piedmont region ahead of the lower in density of population, a lead which it has maintained ever since. But several of the smaller towns lost population during the decade, if the enumeration was equally accurate both times.<sup>6</sup>

The agricultural returns were a little more complete than before, woodland now being separated from other unimproved land on farms, and the annual value of farm products and the amount of wages paid being given. The only apparent errors noticed are that the ratio between woodland

\* The principal cities and towns in the Valley were Rome, with 2748 inhabitants, Cartersville, with 2232, Dalton 1309, and Adairsville 603. In the upper Piedmont Atlanta had 21,739, Marietta 1888, and Jonesboro 531. Between upper and lower Piedmont were Athens, with 4251, Newnan 1917, and Covington 1121. In the lower Piedmont, Griffin, 3421, Milledgeville 2750, LaGrange 2053, Washington 1506, Madison 1389, Eatonton 1240. The fall-line cities stood as follows: Augusta 15,389, Macon 10,810, Columbus 7401.

and other unimproved land varies too much in different counties, probably because this new inquiry was often misunderstood; the value of land and buildings in Habersham and Hart Counties seems too low; the value of animals slaughtered seems much too low in many counties; and the cotton production of Pickens County is returned as 14,739 bales, a figure which is probably about a thousand times too high, and may belong to some other county (possibly Pickens County, Alabama).

TABLE 3.  
*Agricultural statistics of upper Georgia, 1870.*

	APPALACHIAN VALLEY	BLUE RIDGE	UPPER PIEDMONT	LOWER PIEDMONT	WHOLE STATE
Inhabitants per square mile.....	26.9	14.7	29.9	28.6	20.2
Percent white .....	77.4	97.3	74.4	39.0	53.9
Percent colored .....	22.6	2.7	25.6	61.0	46.1
Percent of land improved.....	21.4	9.9	18.2	27.8	18.2
Number of inhabitants per farm..	16.2	7.0	13.9	21.1	17.0
Improved acres per inhabitant....	5.1	4.3	3.9	6.2	5.8
Average number of acres per farm.	261	150	186	361	339
Average improved acres per farm..	83	29	55	131	98
Value of land & buildings per farm	\$2022	350	885	1810	1355
Value of implements & machinery.	80	12	43	81	66
Value of live-stock per farm.....	397	176	274	545	431
Number of horses per farm.....	1.5	0.8	1.0	1.4	1.2
Number of mules per farm.....	1.0	0.3	0.7	1.9	1.3
Number of work oxen per farm...	0.7	0.9	0.8	0.9	0.8
Number of milch cows per farm..	2.3	1.9	1.9	3.0	3.3
Number of other cattle per farm..	3.0	2.4	2.4	4.7	5.9
Number of sheep per farm.....	6.1	6.8	4.9	3.4	6.0
Number of swine per farm.....	13.9	10.9	9.6	12.9	14.2
Value of animals slaughtered per farm.....	119	59	83	118	98
Value of all products per farm...	860	307	656	1694	1150
Wages paid, including board, per farm.....	188	10	110	510	283
Bales of cotton per farm.....	1.8	?	1.8	11.8	6.8
Bushels of corn per farm.....	282	253	209	290	253

This census still finds the lower Piedmont region leading the state in most particulars, but not quite as many as before the war. The yield per acre of both cotton and corn was very low.

The Tenth Census (1880) was in charge of General Walker again, but under a new census law framed by him, which made it the most satisfactory census ever taken up to that time, and in some respects it has not been surpassed since. For the first time farms were classified according to tenure, orchards and pastures were separated from other improved land, and the number of chickens and other poultry, the expenditures for fertilizers in the preceding year, and the acreage of the principal crops were given. Several of these innovations are taken advantage of in Table 4. But combining orchards and pastures (which indeed can hardly be separated in New England, where General Walker lived) is absurd in Georgia, so that all improved land is here lumped together, as before. The definition of improved land adopted at this time was that "tilled, including fallow and grass rotation (whether pasture or meadow)," and "permanent meadows, permanent pastures, orchards, and vineyards."

A backward step taken at this census was classifying farm sizes according to total acreage, instead of by improved acreage as in 1860 and 1870. For a considerable part of almost every farm in a wooded region consists of forest, which does not differ in any important particular from the forests outside of the farms. But in the present paper no use is made of the farm size classification in 1880.

It is also unfortunate that General Walker, with all his originality, did not think of publishing separate statistics for white and negro farmers. But a northern man could hardly have been expected to appreciate the great differences in standards of living between the two races, and no such distinction was made until 1900, and then only to a limited extent. By 1880 doubtless many negroes in Georgia were operating farms, as tenants if not owners (the illiteracy percentage for that race had come down to 81.6),

so that the per farm ratios in Table 4 do not mean much, except in the mountains where negroes are scarce.

Between 1870 and 1880 there were four new counties created in upper Georgia, namely Douglas, in the upper Piedmont, Oconee and Rockdale, between upper and lower (and therefore not used), and McDuffie, in the lower Piedmont. Most of the cities and towns were growing, as usual, especially Atlanta.<sup>7</sup>

Under the head of errors there is an easily detected typographical one in the number of farms in Columbia County in the tenure table (which can be checked by comparison with another table, and adding other figures in the same table). The pasture areas seem unreliable in many cases, for reasons above given, but they are not used here. The areas of counties were given for the first time, but are so obviously inaccurate in some cases that they have been ignored, and the same information taken from later censuses instead.

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<sup>7</sup> In the Valley, Rome had 3877 inhabitants, Dalton 2516, Cartersville 2037, and Cedartown 843. In the upper Piedmont, Atlanta 37,409, Marietta 2227, Gainesville 1919, Roswell 1180. Between upper and lower Piedmont, Athens 6099, Newnan 2006, Covington 1415, Conyers 1374, Elberton 927. In the lower Piedmont, Milledgeville 3800, Griffin 3620, LaGrange 2295, Washington 2199, Madison 1974, West Point 1972, Barnesville 1962, Greensboro 1961, Eatonton 1371, Forsyth 1105, Warrenton 1022, Talbotton 1008. Fall line cities, Augusta 21,891, Macon 12,749, Columbus 10,128.



TABLE 4.  
*Agricultural statistics of upper Georgia, 1879-80*

	APPALACHIAN VALLEY	BLUE RIDGE	UPPER PIEDMONT	LOWER PIEDMONT	WHOLE STATE
Inhabitants per square mile. . . . .	34.3	18.9	43.6	36.5	26.3
Percent white . . . . .	74.2	97.8	73.4	36.0	52.9
Percent colored. . . . .	25.8	2.2	26.6	64.0	47.1
Percent of land improved. . . . .	26.6	12.4	29.6	36.4	21.9
Number of inhabitants per farm. .	10.3	6.9	9.6	11.1	11.1
Improved acres per inhabitant. . . .	5.0	4.2	4.4	6.3	5.3
Percent of farms operated by owners	58.4	75.1	60.5	41.7	55.1
Percent by cash tenants (renters). .	4.6	1.2	4.5	20.4	13.4
Percent by share tenants (croppers)	37.0	23.7	35.0	37.9	31.5
Average number of acres per farm. .	143	175	119	160	188
Average improved acres per farm. .	52	29	42	70	59
Value of land & buildings per farm	\$1061	351	725	914	808
Value of implements & machinery. .	42	18	32	43	38
Value of live-stock per farm. . . . .	179	110	138	184	187
Number of horses per farm. . . . .	0.9	0.7	1.0	0.7	0.7
Number of mules per farm. . . . .	1.1	0.4	1.3	1.2	1.0
Number of work oxen per farm. . . .	0.2	0.6	0.4	0.3	0.4
Number of milch cows per farm. . . .	1.6	1.5	2.3	1.7	2.3
Number of other cattle per farm. . . .	2.1	2.3	3.1	2.6	3.9
Number of sheep per farm. . . . .	3.1	6.2	3.4	1.3	3.8
Number of swine per farm. . . . .	9.6	11.5	11.4	8.3	10.6
Number of chickens per farm. . . . .	19.1	13.3	14.6	16.0	16.4
Number of other poultry per farm. . .	9.8	4.5	11.5	7.7	8.5
Cost of fertilizers (1879) per farm	19	1.27	30	40	31
Value of products (1879) per farm	423	147	394	591	484
Cost of fertilizers per impr. acre. . .	0.37	0.04	0.72	0.57	0.53
Value of products per impr. acre. . .	8.20	5.18	9.52	8.39	8.16
Percent of improved land in cotton	18.4	1.5	28.0	38.3	31.9
Percent of improved land in corn. . .	33.6	47.3	33.9	26.1	30.9
Percent of improved land in oats. . .	9.3	4.3	6.4	5.8	7.5
Percent of improved land in wheat	16.2	14.6	10.9	5.4	5.8
Bales of cotton per acre. . . . .	0.43	0.33	0.40	0.30	0.31
Bushels of corn per acre. . . . .	14.2	13.8	12.6	7.9	9.2
Bushels of oats per acre. . . . .	8.1	6.5	8.0	10.1	9.0
Bushels of wheat per acre. . . . .	6.9	4.7	7.0	7.2	6.7

By 1880 the amount of improved land had recovered, and passed the 1860 figures, except in the lower Piedmont region. Commercial fertilizers, just coming into general use, must have made it profitable to cultivate again some of the exhausted old fields.

There were more owners than tenants in the three regions where white farmers are in the majority, and vice versa, for fairly obvious reason. It is interesting to note that share tenants (croppers) are eight to twenty times as numerous as cash tenants (renters) in the first three regions and less than twice as numerous in the fourth. This is explained by Dr. Brooks in his "Agrarian revolution in Georgia" by the fact that where negro farmers are in the minority they are much more likely to work under the immediate supervision of white men than where the proportions are reversed.

The low values and number of animals per farm are probably due to the inclusion of some negro farmers in the averages, except in the Blue Ridge, where some other explanation must be sought. Mules now outnumber horses, except in the mountains, oxen are going out of style or at least getting scarce, sheep likewise, and hogs are barely holding their own.

On the face of the returns the most progressive farming in 1879-80, judging from the expenditures for fertilizers and the value of products per acre, was in the upper Piedmont region. But there is good reason to believe that the white farmers of the lower Piedmont, probably mostly the sons of the ante-bellum planters and overseers, or in many cases the same men, were still maintaining their supremacy. This can be tested when we come to the statistics of later censuses, where the races are separated.

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ADDENDUM. An interesting feature of the Tenth Census cotton production report cited on page 11 is that information about soils and agricultural practices was furnished by one or more of the leading farmers in each county, including several who afterwards took a prominent part in public affairs, such as Prof. (now Chancellor) David C. Barrow, Leonidas F. Livingston, A. H. McLaws, J. B. Norman, W. J. Northen, W. L. Peck, and C. J. Welborn.